

## REMARKS

Claims 1-61 are pending, claims 34-61 are new, and claims 1, 13, 18-20, 22 and 23 are amended. The new claims include one independent claim 34 and the subject matter of dependent claims 36-60 is nearly identical to that of dependent claims 2-22 as originally filed and claims 25, 28, and 31. New claims 35 and 61 are directed to subject matter cancelled herein from claim 1 as it was originally filed. Thus, new claims 34-61 find basis throughout the specification (*see e.g.* page 7, lines 8-21) and in the claims as filed. The amendments to claims 1, 13, 18-20, 22 and 23 improve the grammar of the claim language. Thus, the new claims and the claim amendments introduce no new matter and are non-narrowing.

Claim 13 was rejected under 35 U.S.C. § 112, second paragraph, as the term “type” was allegedly indefinite. This rejection is moot in view of the amendment to claim 13, which removes the term “type” from the claim. The claims were also rejected under 35 U.S.C. § 103 in view of Lang *et al.* (EP 487 774) and in view of Lang *et al.* as the primary document in combination with other documents. These obviousness rejections are respectfully traversed, and reasons for traversal are discussed separately below according to claim type: process, product by process, and product.

### Process Claims 1-21 and 61

The Office alleges that these claims are rendered obvious by Lang *et al.* under the rationale that the document teaches a granulation method accomplished by utilizing a fluidized bed, which is characterized by the Office as a closed system. The Office provides no evidence that fluidized beds are closed systems, and is the applicants understanding that fluidized beds are open systems as illustrated in the article attached as Exhibit B. This article shows that air entering inlet filters passes through the fluidized bed housing and then exits the top of the housing via a fan. Thus, the assertion that a fluidized bed is a closed system is based upon facts possibly within the personal knowledge of the examiner and such facts must be supported by an affidavit from the Examiner in accordance with 37 C.F.R. 1.104(d)(2). Accordingly, the

applicants respectfully request an affidavit from the Examiner if the Office maintains the argument that a fluidized bed is a closed system. In the absence of such evidence, the open fluidized bed systems are different than closed systems specified by claim 1 and its dependent claims.

Thus, Lang *et al.* does not result in the processes of claims 1-21 and 61 because the document fails to teach or suggest methods in which heating and mixing is carried out in a closed system. As Kumar (U.S. Patent No. 6,117,451), Ansel *et al.*, (1999), and Rodnick (Remington 1995) also failed to disclose processes in which material is heated and mixed in a closed system, they fail to cure this deficiency of Lang *et al.* Accordingly, neither Lang *et al.* or any of the cited combinations result in the processes of claims 1-21 and 61 and cannot support a *prima facie* case for obviousness.

#### New Process Claims 34-56

As described above, neither Lang *et al.* or any of the cited combinations can support a *prima facie* case of obviousness with respect to the newly claimed processes because they too are limited to heating and mixing in a closed system. Furthermore, Lang *et al.* does not result in the new process claims because the documents alone and in combination fail to teach or suggest a thermal adhesion granulation process in which excipients and inactive ingredient are dry blended before water or a pharmaceutically acceptable organic solvent is added to the dry-blended mixture. Rather, Lang *et al.* is directed to wet granulation methods in which wetted excipients are individually combined with one another and then the resulting liquid mixture is subjected to sieving and/or drying methods. Thus, Lang *et al.* and the cited combinations do not result in the newly claimed processes and do not support a *prima facie* case for obviousness.

#### Product by Process Claims 22 and 57

The thermal adhesion granulation processes set forth in independent claims 1 and 34 result in a granulated product having different properties than those produced by the wet

granulation processes disclosed in Lang *et al.* For example, the present application makes it clear that the presence of excessive moisture in wet granulation processes can negatively affect ingredients in the tableting formulation, which can result in reduced compressibility of certain excipients (*e.g.* page 3, lines 9-19). The enhanced compressibility of products of thermal adhesion granulation processes are evidenced by data set forth in the Examples section. Specifically, the tensile strength of tablets reported in Table 5 on page 19 of the specification are between 0.18 and 1.32 MPa, which are equivalent to  $1.8 \times 10^5 \text{ N/m}^2$  to  $1.32 \times 10^6 \text{ N/m}^2$  as there is a 1:1 conversion from Pa to  $\text{N/m}^2$ . Because the tensile strength of tablets disclosed in Lang *et al.* on page 4, lines 55-57, are 180-290 N, where the patentees most likely intended 180-290  $\text{N/m}^2$  as  $\text{N/m}^2$  is a common unit for tensile strength, the tableting compositions and products disclosed in the present application offered surprisingly advantageous tensile strengths that were significantly improved over the prior art.

Thus, the properties of products produced by the thermal adhesion granulation process differ from products produced by the wet granulation processes disclosed in Lang *et al.* or any other cited document, and therefore claims 22 and 57 are inventive over the cited documents. Accordingly, tablets, capsules, and pellets comprising such products, as set forth in claims 25, 28, 31, and 58-60 differ from those taught or suggested in the cited art.

#### Product Claims 23 and 24

Claim 23 is directed to a product containing PVP and DCPA. None of the cited documents teach or suggest this combination. While Kumar discusses DCPA as an agent that can improve blending and flow for dry mixing, such characteristics are not necessarily important for the wet granulation processes discussed in Lang *et al.* Because the dry mixing techniques discussed in Kumar are distinct from the wet granulation processes discussed in Lang *et al.*, there was no motivation for the person of ordinary skill in the art to combine the documents. As there was no motivation to combine Kumar with Lang *et al.* the cited combination cannot support a

*prima facie* case for obviousness in connection with claim 23. Because claims 26, 29, and 32 depend from claim 23, they too are not obvious in view of the cited combination.

Claim 24 is directed to a tableting formulation that was subjected to the disclosed thermal adhesion granulation process and led to a product having a significant tensile strength (see e.g. granule A' formulation in Table 3 on page 17). The cited documents alone or in combination did not teach this formulation because they did not envision (1) the thermal granulation process for which the claimed formulation is adapted, or (2) the products yielded by the process having improved compression characteristics. Also, there was no motivation to combine Lang *et al.* with Kumar, as explained above, and therefore the cited combination cannot support a *prima facie* case for obviousness in connection with claim 24. As claims 27, 30, and 33 depend from claim 24, they too are not obvious in view of the cited combination.

## CONCLUSIONS

It is respectfully requested that the Office withdraw the rejections of the claims under 35 U.S.C. § 112, second paragraph, as the claim amendments render the rejection moot. It also is respectfully requested that the Office withdraw the rejections under 35 U.S.C. § 103 as the cited documents alone and in combination fail to teach or suggest a granulation process carried out in a closed system and because the claimed processes lead to products having different properties than those produced by wet granulation processes.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 205032001200.

Respectfully submitted,

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